

IN THE SPECIFICATION

On page 6, please replace the paragraph inserted by an amendment filed September 18, 2006 with the following paragraph:

The three liquids (LLL) in liquid-liquid-liquid micro extraction (LLLME) are set forth in Figures 3 and 4. The first liquid is the sample solution, the second liquid is the liquid membrane, filled in and supported by a hollow fibre, and the third liquid is the acceptor solution. Liquid-liquid micro extraction (LLME) on the other hand utilized non-liquid membrane as shown in Figure 2.

On page 7 please replace the first paragraph with the following paragraph:

Clean up and concentration of analytes are based on partitioning of the analytes from a large volume of the aqueous sample matrix through a membrane and into a small volume of an aqueous acceptor phase. The membrane acts as a clean-up barrier between two aqueous phases. A hereinabove noted, the membrane is a liquid filled in and supported by a hollow fibre. Both basic and acid compounds can be enriched with LLLME. The pH of the matrix is adjusted so that the analytes are uncharged. This permits them to pass through the membrane into the aqueous acceptor solution on the other side. The pH of the acceptor solution is adjusted to a pH where the analytes are ionized, this preventing them from re-entering the membrane. Only small uncharged molecules can pass through the membrane and only molecules which are soluble in the membrane and in the acceptor solution can be enriched. Water soluble neutral substances remain in the matrix. Neutral hydrophobic substances partition into the membrane and not into the acceptor phase. Substances with the opposite charge as the analytes remain in the matrix. LLLME is thus a powerful clean-up technique.

On page 8, please replace the third paragraph with the following paragraph:

The chemical nature of the membrane is important in obtaining short analysis times. Extractions should be continued until equilibrium between the three phases is established. If the membrane/sample partition coefficient is low, equilibrium times will be long and will approach

infinity for analytes which are very poorly soluble in the membrane. The solvent, filling the hollow fibre and forming the membrane, should therefore be a good solvent for the target analyte. The chemical nature of the membrane is also important for tuning of the selectivity.

On page 12, please replace the last paragraph with the following paragraph:

LLLME is performed with 1-octanol as the immobilized liquid. ~~The A~~ hollow fibre was immersed for 5 sec in 1-octanol which is sufficient for 1-octanol to penetrate and fill the pores of the fibre. 10 µl of 0.1M HCl was used as acceptor solution and was filled into the impregnated fibre with a syringe. A standard solution of 4 µg/ml of diphenhydramine in 0.1 M HCl was prepared as a reference for directed injection into the CE instrument. In addition, sample solutions of diphenhydramine (4 µg/ml) were prepared in 0.1 M NaOH, in urine and plasma. Before extraction the pH in the urine and plasma sample solutions were adjusted to a pH 12-13 with NaOH. 1.5 ml of the sample solutions were placed in 2 ml autosampler vials. LLLME was accomplished by stirring with a magnetic stir bar for 30 min. The acceptor solution was removed after extraction and analysed by CE. Separations were performed inside a 10 cm effective length (52 cm total length) x 50 µm internal diameter fused silica capillary. A 20 mM sodium acetate buffer adjusted to pH 4.5 with acetic acid was utilised as separation buffer. Sample introduction was accomplished by hydrodynamic injection with a pressure of 0.5 psi for 5 sec. Separations were performed at 25 kV, while detection was accomplished at 215 nm. Electropherograms are shown in Figure 6. The electropherograms show that diphenhydramine (DH) was preconcentrated by a factor of 90 from the sample solution prepared in 0.1 M NaOH and in urine. A preconcentration of 50 was achieved from plasma. The lower enrichment from plasma is due to protein binding of the analyte. For both of the biological samples, excellent sample clean-up was observed in addition to analyte enrichment. In spite of the high sample complexity, almost no matrix components were observed in the electropherograms obtained by capillary zone electrophoresis.